

7/17/2009

Mr. Doug Lam
Trihydro Corporation
5000 State Route 128

Cleves OH 45002

Project Name: MNA Vapor Sampling
Project #: 500-017-012
Workorder #: 0907205C

Dear Mr. Doug Lam

The following report includes the data for the above referenced project for sample(s) received on 7/10/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brandon Dunmore at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



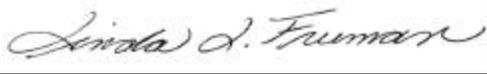
Brandon Dunmore
Project Manager

WORK ORDER #: 0907205C

Work Order Summary

CLIENT:	Mr. Doug Lam Trihydro Corporation 5000 State Route 128 Cleves, OH 45002	BILL TO:	Mr. Tim Gunn Trihydro Corporation 5000 State Route 128 Cleves, OH 45002
PHONE:	513-353-1323 ext 23	P.O. #	08-049WO-L
FAX:	513-353-4664	PROJECT #	500-017-012 MNA Vapor Sampling
DATE RECEIVED:	07/10/2009	CONTACT:	Brandon Dunmore
DATE COMPLETED:	07/17/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VW-139(5), 070109	Modified ASTM D-1946	5.5 "Hg	15 psi
02A	VW-139(10), 070109	Modified ASTM D-1946	3.5 "Hg	15 psi
02AA	VW-139(10), 070109 Lab Duplicate	Modified ASTM D-1946	3.5 "Hg	15 psi
03A	VW-139(15), 070109	Modified ASTM D-1946	4.0 "Hg	15 psi
04A	VW-139(20), 070109	Modified ASTM D-1946	4.5 "Hg	15 psi
05A	VW-139(30), 070109	Modified ASTM D-1946	4.0 "Hg	15 psi
06A	Lab Blank	Modified ASTM D-1946	NA	NA
06B	Lab Blank	Modified ASTM D-1946	NA	NA
07A	LCS	Modified ASTM D-1946	NA	NA

CERTIFIED BY: 

DATE: 07/17/09

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1946
Trihydro Corporation
Workorder# 0907205C

Five 1 Liter Summa Canister (100% Certified) samples were received on July 10, 2009. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 X$'s the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VW-139(5), 070109

Lab ID#: 0907205C-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	16
Nitrogen	0.25	77
Carbon Dioxide	0.025	6.6

Client Sample ID: VW-139(10), 070109

Lab ID#: 0907205C-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	16
Nitrogen	0.23	80
Carbon Dioxide	0.023	4.4

Client Sample ID: VW-139(10), 070109 Lab Duplicate

Lab ID#: 0907205C-02AA

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	16
Nitrogen	0.23	80
Carbon Dioxide	0.023	4.4

Client Sample ID: VW-139(15), 070109

Lab ID#: 0907205C-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	12
Nitrogen	0.23	83
Carbon Dioxide	0.023	4.7

Client Sample ID: VW-139(20), 070109

Lab ID#: 0907205C-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	12
Nitrogen	0.24	83



Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VW-139(20), 070109

Lab ID#: 0907205C-04A

Carbon Dioxide	0.024	5.0
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Client Sample ID: VW-139(30), 070109

Lab ID#: 0907205C-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	11
Nitrogen	0.23	83
Carbon Dioxide	0.023	5.7



Client Sample ID: VW-139(5), 070109

Lab ID#: 0907205C-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9071417	Date of Collection: 7/1/09 10:42:00 AM
Dil. Factor:	2.47	Date of Analysis: 7/14/09 03:04 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	16
Nitrogen	0.25	77
Carbon Monoxide	0.025	Not Detected
Methane	0.00025	Not Detected
Carbon Dioxide	0.025	6.6
Ethane	0.0025	Not Detected
Ethene	0.0025	Not Detected
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VW-139(10), 070109

Lab ID#: 0907205C-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9071418	Date of Collection: 7/1/09 11:22:00 AM
Dil. Factor:	2.29	Date of Analysis: 7/14/09 03:26 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	16
Nitrogen	0.23	80
Carbon Monoxide	0.023	Not Detected
Methane	0.00023	Not Detected
Carbon Dioxide	0.023	4.4
Ethane	0.0023	Not Detected
Ethene	0.0023	Not Detected
Helium	0.11	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VW-139(10), 070109 Lab Duplicate

Lab ID#: 0907205C-02AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9071419	Date of Collection:	7/1/09 11:22:00 AM
Dil. Factor:	2.29	Date of Analysis:	7/14/09 03:49 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	16
Nitrogen	0.23	80
Carbon Monoxide	0.023	Not Detected
Methane	0.00023	Not Detected
Carbon Dioxide	0.023	4.4
Ethane	0.0023	Not Detected
Ethene	0.0023	Not Detected
Helium	0.11	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VW-139(15), 070109

Lab ID#: 0907205C-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9071420	Date of Collection: 7/1/09 11:57:00 AM
Dil. Factor:	2.33	Date of Analysis: 7/14/09 04:11 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	12
Nitrogen	0.23	83
Carbon Monoxide	0.023	Not Detected
Methane	0.00023	Not Detected
Carbon Dioxide	0.023	4.7
Ethane	0.0023	Not Detected
Ethene	0.0023	Not Detected
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VW-139(20), 070109

Lab ID#: 0907205C-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9071421	Date of Collection: 7/1/09 12:32:00 PM
Dil. Factor:	2.38	Date of Analysis: 7/14/09 04:41 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	12
Nitrogen	0.24	83
Carbon Monoxide	0.024	Not Detected
Methane	0.00024	Not Detected
Carbon Dioxide	0.024	5.0
Ethane	0.0024	Not Detected
Ethene	0.0024	Not Detected
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VW-139(30), 070109

Lab ID#: 0907205C-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9071422	Date of Collection:	7/1/09 1:13:00 PM
Dil. Factor:	2.33	Date of Analysis:	7/14/09 05:04 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	11
Nitrogen	0.23	83
Carbon Monoxide	0.023	Not Detected
Methane	0.00023	Not Detected
Carbon Dioxide	0.023	5.7
Ethane	0.0023	Not Detected
Ethene	0.0023	Not Detected
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Client Sample ID: Lab Blank

Lab ID#: 0907205C-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9071404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/14/09 08:40 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	Not Detected
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank

Lab ID#: 0907205C-06B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9071405b	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/14/09 09:07 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: LCS

Lab ID#: 0907205C-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9071423	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/14/09 05:28 PM

Compound	%Recovery
Oxygen	100
Nitrogen	102
Carbon Monoxide	93
Methane	98
Carbon Dioxide	102
Ethane	97
Ethene	98
Helium	104

Container Type: NA - Not Applicable